

IFW



Docket No.: 0171-1248PUS1
(PATENT)

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of:
Kensuke ITAKURA et al.

Application No.: 10/559,999



Confirmation No.: 4595

Filed: December 9, 2005

Art Unit: 1751

For: POWDERS, FLAKES, OR PELLETS
CONTAINING SALTS OF α -SULFO FATTY
ACID ALKYL ESTERS IN HIGH
CONCENTRATIONS, PROCESS FOR
PRODUCTION THEREOF, GRANULATED
DETERGENTS, AND PROCESS FOR
PRODUCTION THEREOF

Examiner: Not Yet Assigned

LETTER

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

Subsequent to the filing of the above-identified application on December 9, 2005, attached hereto is an International Preliminary Examination Report (Form PCT/ISA/237) and an English translation thereof that should be made of record in the present application.

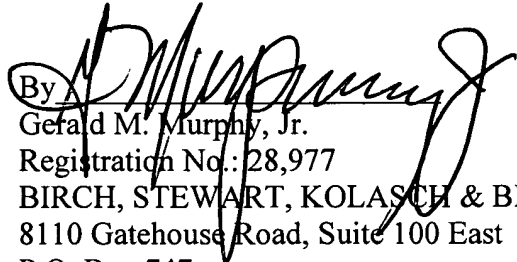
Application No.: 10/559,999

Docket No.: 0171-1248PUS1

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or to credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. § 1.16 or under 37 C.F.R. § 1.17; particularly, extension of time fees.

Dated: JUN 14 2006

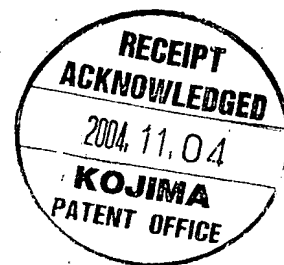
Respectfully submitted,

By 
Gerald M. Murphy, Jr.
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特許協力条約

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出願人代理人

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PCT

国際調査機関の見解書

(法施行規則第40条の2)

[PCT規則43の2.1]

発送日

(日.月.年)

02.11.2004

出願人又は代理人
の書類記号

FAP-3882

今後の手続きについては、下記2を参照すること。

国際出願番号

PCT/JP2004/008563

国際出願日

(日.月.年)

11.06.2004

優先日

(日.月.年)

12.06.2003

国際特許分類 (IPC)

Int. Cl⁷ C11D 1/28, 11/04, 17/06

出願人 (氏名又は名称)

ライオン株式会社

1. この見解書は次の内容を含む。

☒ 第I欄 見解の基礎

☐ 第II欄 優先権

☐ 第III欄 新規性、進歩性又は産業上の利用可能性についての見解の不作成

☐ 第IV欄 発明の単一性の欠如

☒ 第V欄 PCT規則43の2.1(a)(i)に規定する新規性、進歩性又は産業上の利用可能性についての見解、それを裏付けるための文献及び説明

☐ 第VI欄 ある種の引用文献

☐ 第VII欄 国際出願の不備

☒ 第VIII欄 国際出願に対する意見

2. 今後の手続き

国際予備審査の請求がされた場合は、出願人がこの国際調査機関とは異なる国際予備審査機関を選択し、かつ、その国際予備審査機関がPCT規則66.1の2(b)の規定に基づいて国際調査機関の見解書を国際予備審査機関の見解書とみなさない旨を国際事務局に通知していた場合を除いて、この見解書は国際予備審査機関の最初の見解書とみなされる。

この見解書が上記のように国際予備審査機関の見解書とみなされる場合、様式PCT/ISA/220を送付した日から3月又は優先日から22月のうちいずれか遅く満了する期限が経過するまでに、出願人は国際予備審査機関に、適当な場合は補正書とともに、答弁書を提出することができる。

さらなる選択肢は、様式PCT/ISA/220を参照すること。

3. さらなる詳細は、様式PCT/ISA/220の備考を参照すること。

見解書を作成した日

14.09.2004

名称及びあて先

日本国特許庁 (ISA/JP)

郵便番号100-8915

東京都千代田区霞が関三丁目4番3号

特許庁審査官 (権限のある職員)

井上 典之

4V

9360

電話番号 03-3581-1101 内線 3483

様式PCT/ISA/237 (表紙) (2004年1月)

第 I 欄 見解の基礎

1. この見解書は、下記に示す場合を除くほか、国際出願の言語を基礎として作成された。

- ☐ この見解書は、_____ 語による翻訳文を基礎として作成した。
それは国際調査のために提出された PCT 規則 12.3 及び 23.1(b) にいう翻訳文の言語である。

2. この国際出願で開示されかつ請求の範囲に係る発明に不可欠なヌクレオチド又はアミノ酸配列に関して、以下に基づき見解書を作成した。

a. タイプ ☐ 配列表

☐ 配列表に関連するテーブル

b. フォーマット ☐ 書面

☐ コンピュータ読み取り可能な形式

c. 提出時期 ☐ 出願時の国際出願に含まれる

☐ この国際出願と共にコンピュータ読み取り可能な形式により提出された

☐ 出願後に、調査のために、この国際調査機関に提出された

3. ☐ さらに、配列表又は配列表に関連するテーブルを提出した場合に、出願後に提出した配列若しくは追加して提出した配列が出願時に提出した配列と同一である旨、又は、出願時の開示を超える事項を含まない旨の陳述書の提出があった。

4. 補足意見：

第V欄 新規性、進歩性又は産業上の利用可能性についてのPCT規則43の2.1(a)(i)に定める見解、それを裏付ける文献及び説明

1. 見解

新規性 (N)	請求の範囲	1 - 9	有 無
	請求の範囲		
進歩性 (IS)	請求の範囲		有 無
	請求の範囲	1 - 9	
産業上の利用可能性 (IA)	請求の範囲	1 - 9	有 無
	請求の範囲		

2. 文献及び説明

この見解書においては、国際調査報告で提示された以下の文献1-5に基づいて見解を示す。

文献1: JP 2001-64248 A (LION CORPORATION), 2001.03.13

文献2: JP 8-157894 A (LION CORPORATION), 1996.06.18

文献3: JP 9-87700 A (LION CORPORATION), 1997.03.31

文献4: JP 10-88197 A (LION CORPORATION), 1998.04.07

文献5: JP 11-172299 A (LION CORPORATION), 1999.06.29

<新規性について>

上記文献1-5のいずれにも、本願の請求の範囲1に記載の(1)-(4)の各工程を全て含む α -スルホ脂肪酸アルキルエステル塩を高濃度含有するパウダー、フレーク又はペレットの製造方法は記載されていない。

したがって、本願の請求の範囲1-9は新規性を有するものである。

<進歩性について>

脂肪酸アルキルエステルにスルホン化ガスを接触させてスルホン化し、これを低級アルコールでエステル化した後、漂白、中和を行って α -スルホ脂肪酸アルキルエステル塩含有ペーストを得る工程(本願の請求の範囲1に記載の工程(1)に相当する)は、例えば文献1に記載されているように、従来から知られている(文献1の[0002]-[0014]「従来の技術」及び[図10]を参照)。

一方、 α -スルホ脂肪酸アルキルエステル塩含有ペーストを含有水分10質量%以下のフレーク又はペレットにし、場合により得られたフレーク又はペレットを平均粒径100~1,500 μ mのパウダーに粉碎する工程(本願の請求の範囲1に記載の工程(3)に相当)によって、 α -スルホ脂肪酸アルキルエステル塩を高濃度含有するパウダー、フレーク又はペレットを製造し、このパウダー、フレーク又はペレットを、その他の洗剤成分と混合又は造粒する粒状洗剤の製造方法も既に知られている(例えば、文献2の要約、請求項1-5、[0014]-[0023]、[0024]-[0027]、文献3の要約、請求項1-2、

第Ⅶ欄 国際出願に対する意見

請求の範囲、明細書及び図面の明瞭性又は請求の範囲の明細書による十分な裏付についての意見を次に示す。

本願発明の製造方法は、「(2) 得られたペーストを熟成する第1熟成工程」及び「(4) パウダー、フレーク又はペレットを熟成する第2熟成工程」を含んでおり、明細書の第12頁第4行及び第16頁第2行には、「熟成とは、所定温度で所定時間保持することをいう。」と記載され、好適な温度及び時間の範囲が例示されているものの、具体的な温度及び時間の範囲が特定されていないため、上記各「熟成工程」がどのような工程であるのか明確に把握することができない。

補充欄

いずれかの欄の大きさが足りない場合

第 V 欄の続き

[0009] - [0011]、[0015] - [0019]、文献4の要約、請求項1、[0011] - [0015]、[0016] - [0019]、及び文献5の要約、請求項1-2、[0007] - [0010]、[0013] - [0019]、[0021]、[0027] - [0031]「実施例1-9」[表1-2]を参照)。

上記文献2-5に記載の α -スルホ脂肪酸アルキルエステル塩を高濃度含有するパウダー、フレーク又はペレットの製造方法、及びそれらを含む粒状洗剤の製造方法において、上記文献1に記載の工程により得られた α -スルホ脂肪酸アルキルエステル塩含有ペーストを用いる程度のことは、当業者であれば容易に想到し得ることであるといえる。

ところで、本願発明の製造方法は、「(2)得られたペーストを熟成する第1熟成工程」と「(4)パウダー、フレーク又はペレットを熟成する第2熟成工程」を含むものであるが、第VIII欄でも指摘したように、上記各「熟成工程」とはどのような工程であるのか不明確であり、不特定の温度で不特定の時間、単に中間生成物を放置することをも含む得ると認められる。

そうすると、粒状洗剤の製造方法において、ある工程の後、次の工程を開始するまで、中間生成物を一定の温度で数分〜数時間保持することは、次の工程の準備の状況等によっては十分あり得ることであるから、上記 α -スルホ脂肪酸アルキルエステル塩含有ペーストを得る工程の後、及び、上記 α -スルホ脂肪酸アルキルエステル塩を高濃度含有するパウダー、フレーク又はペレットを得る工程の後に、次の工程を開始するまで、中間生成物であるペースト及びパウダー、フレーク又はペレットを、一定の温度で数分〜数時間保持することも、当業者にとって自明である。

また、上記 α -スルホ脂肪酸アルキルエステル塩含有ペーストを得る工程において、中和と漂白のどちらを先に行うのかは当業者が適宜選択し得る程度のことに過ぎず、先に中和を行い、中和物を漂白することによって、予測できないような優れた効果が得られるとも認められない。

さらに、粒状洗剤の製造方法として、各洗剤成分を含むスラリーを噴霧乾燥する方法は周知であり、粒状洗剤と共通する洗剤成分を混練して固形洗剤とすることにも特段の困難性は見出せない。

したがって、本願の請求の範囲1-9は進歩性を有しないものである。

<産業上の利用可能性について>

本願の請求の範囲1-9は、洗剤等の分野において産業上の利用可能性を有するものである。

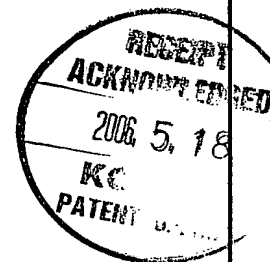
From the INTERNATIONAL BUREAU

PCT

NOTIFICATION OF TRANSMITTAL
OF COPIES OF TRANSLATION
OF THE INTERNATIONAL PRELIMINARY REPORT
ON PATENTABILITY
(CHAPTER I OR CHAPTER II
OF THE PATENT COOPERATION TREATY)
(PCT Rules 44bis.3(c) and 72.2)

To:

KOJIMA, Takashi
GINZA OHTSUKA Bldg. 2F
16-12, Ginza 2-Chome
Chuo-Ku, Tokyo 1040061
JAPON



Date of mailing (day/month/year) 04 May 2006 (04.05.2006)		
Applicant's or agent's file reference FAP-3882	IMPORTANT NOTIFICATION	
International application No. PCT/JP2004/008563	International filing date (day/month/year) 11 June 2004 (11.06.2004)	
Applicant LION CORPORATION et al		

1. Transmittal of the translation to the applicant.



The International Bureau transmits herewith a copy of the English translation of the international preliminary report on patentability (Chapter I).



The International Bureau transmits herewith a copy of the English translation of the international preliminary report on patentability (Chapter II).

2. Transmittal of the copy of the translation to the designated or elected Offices.

The International Bureau notifies the applicant that copies of that translation have been transmitted to the following designated or elected Offices requiring such translation:

None

The following designated or elected Offices, having waived the requirement for such a transmittal at this time, will receive copies of that translation from the International Bureau only upon their request:

AE, AG, AL, AM, AP, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EA, EC, EE, EG, EP, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OA, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW

3. Reminder regarding translation into (one of) the official language(s) of the elected Office(s).

The applicant is reminded that, where a translation of the international application must be furnished to an elected Office, that translation must contain a translation of any annexes to the international preliminary report on patentability (Chapter II).

It is the applicant's responsibility to prepare and furnish such translation directly to each elected Office concerned within the applicable time limit (Rule 74.1). See Volume II of the PCT Applicant's Guide for further details.

The International Bureau of WIPO 34, chemin des Colombettes 1211 Geneva 20, Switzerland Facsimile No.+41 22 740 14 35	Authorized officer Masashi Honda Facsimile No.+41 22 338 70 10
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PATENT COOPERATION TREATY

PCT

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

(Chapter I of the Patent Cooperation Treaty)

(PCT Rule 44bis)

Applicant's or agent's file reference FAP-3882	FOR FURTHER ACTION	See item 4 below
International application No. PCT/JP2004/008563	International filing date (<i>day/month/year</i>) 11 June 2004 (11.06.2004)	Priority date (<i>day/month/year</i>) 12 June 2003 (12.06.2003)
International Patent Classification (8th edition unless older edition indicated) See relevant information in Form PCT/ISA/237		
Applicant LION CORPORATION		

1.	This international preliminary report on patentability (Chapter I) is issued by the International Bureau on behalf of the International Searching Authority under Rule 44 <i>bis</i> .1(a).																								
2.	This REPORT consists of a total of 6 sheets, including this cover sheet. In the attached sheets, any reference to the written opinion of the International Searching Authority should be read as a reference to the international preliminary report on patentability (Chapter I) instead.																								
3.	<p>This report contains indications relating to the following items:</p> <table style="width: 100%;"> <tr> <td style="width: 10%; text-align: center;"><input checked="" type="checkbox"/></td> <td style="width: 40%;">Box No. I</td> <td style="width: 50%;">Basis of the report</td> </tr> <tr> <td style="text-align: center;"><input type="checkbox"/></td> <td>Box No. II</td> <td>Priority</td> </tr> <tr> <td style="text-align: center;"><input type="checkbox"/></td> <td>Box No. III</td> <td>Non-establishment of opinion with regard to novelty, inventive step and industrial applicability</td> </tr> <tr> <td style="text-align: center;"><input type="checkbox"/></td> <td>Box No. IV</td> <td>Lack of unity of invention</td> </tr> <tr> <td style="text-align: center;"><input checked="" type="checkbox"/></td> <td>Box No. V</td> <td>Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement</td> </tr> <tr> <td style="text-align: center;"><input type="checkbox"/></td> <td>Box No. VI</td> <td>Certain documents cited</td> </tr> <tr> <td style="text-align: center;"><input type="checkbox"/></td> <td>Box No. VII</td> <td>Certain defects in the international application</td> </tr> <tr> <td style="text-align: center;"><input checked="" type="checkbox"/></td> <td>Box No. VIII</td> <td>Certain observations on the international application</td> </tr> </table>	<input checked="" type="checkbox"/>	Box No. I	Basis of the report	<input type="checkbox"/>	Box No. II	Priority	<input type="checkbox"/>	Box No. III	Non-establishment of opinion with regard to novelty, inventive step and industrial applicability	<input type="checkbox"/>	Box No. IV	Lack of unity of invention	<input checked="" type="checkbox"/>	Box No. V	Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement	<input type="checkbox"/>	Box No. VI	Certain documents cited	<input type="checkbox"/>	Box No. VII	Certain defects in the international application	<input checked="" type="checkbox"/>	Box No. VIII	Certain observations on the international application
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<input type="checkbox"/>	Box No. VII	Certain defects in the international application																							
<input checked="" type="checkbox"/>	Box No. VIII	Certain observations on the international application																							
4.	The International Bureau will communicate this report to designated Offices in accordance with Rules 44bis.3(c) and 93bis.1 but not, except where the applicant makes an express request under Article 23(2), before the expiration of 30 months from the priority date (Rule 44bis .2).																								

The International Bureau of WIPO 34, chemin des Colombettes 1211 Geneva 20, Switzerland	Date of issuance of this report 24 April 2006 (24.04.2006)
Facsimile No. +41 22 740 14 35	Authorized officer <div style="text-align: center; font-weight: bold; margin: 10px 0;">Masashi Honda</div> Telephone No. +41 22 338 70 10

PATENT COOPERATION TREATY

TRANSLATION

From the
INTERNATIONAL SEARCHING AUTHORITY

PCT

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

(PCT Rule 43bis.1)

To:		
		<p>DATE OF MAILING</p> <p>(day/month/year)</p>
Applicant's or agent's file reference FAP-3882		FOR FURTHER ACTION See paragraph 2 below
International application No. PCT/JP2004/008563	International filing date (day/month/year) 11.06.2004	Priority date (day/month/year) 12.06.2003
International Patent Classification (IPC) or both national classification and IPC		
Applicant LION CORPORATION		

<p>1. This opinion contains indications relating to the following items:</p> <table style="width: 100%;"> <tr> <td style="width: 5%; text-align: center;"><input checked="" type="checkbox"/></td> <td style="width: 30%;">Box No. I</td> <td>Basis of the opinion</td> </tr> <tr> <td style="text-align: center;"><input type="checkbox"/></td> <td>Box No. II</td> <td>Priority</td> </tr> <tr> <td style="text-align: center;"><input type="checkbox"/></td> <td>Box No. III</td> <td>Non-establishment of opinion with regard to novelty, inventive step and industrial applicability</td> </tr> <tr> <td style="text-align: center;"><input type="checkbox"/></td> <td>Box No. IV</td> <td>Lack of unity of invention</td> </tr> <tr> <td style="text-align: center;"><input checked="" type="checkbox"/></td> <td>Box No. V</td> <td>Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement</td> </tr> <tr> <td style="text-align: center;"><input type="checkbox"/></td> <td>Box No. VI</td> <td>Certain documents cited</td> </tr> <tr> <td style="text-align: center;"><input type="checkbox"/></td> <td>Box No. VII</td> <td>Certain defects in the international application</td> </tr> <tr> <td style="text-align: center;"><input checked="" type="checkbox"/></td> <td>Box No. VIII</td> <td>Certain observations on the international application</td> </tr> </table> <p>2. FURTHER ACTION</p> <p>If a demand for international preliminary examination is made, this opinion will be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA") except that this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.</p> <p>If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of 3 months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.</p> <p>For further options, see Form PCT/ISA/220.</p> <p>3. For further details, see notes to Form PCT/ISA/220.</p>	<input checked="" type="checkbox"/>	Box No. I	Basis of the opinion	<input type="checkbox"/>	Box No. II	Priority	<input type="checkbox"/>	Box No. III	Non-establishment of opinion with regard to novelty, inventive step and industrial applicability	<input type="checkbox"/>	Box No. IV	Lack of unity of invention	<input checked="" type="checkbox"/>	Box No. V	Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement	<input type="checkbox"/>	Box No. VI	Certain documents cited	<input type="checkbox"/>	Box No. VII	Certain defects in the international application	<input checked="" type="checkbox"/>	Box No. VIII	Certain observations on the international application
<input checked="" type="checkbox"/>	Box No. I	Basis of the opinion																						
<input type="checkbox"/>	Box No. II	Priority																						
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<input checked="" type="checkbox"/>	Box No. VIII	Certain observations on the international application																						

Name and mailing address of the ISA/JP	Authorized officer
Facsimile No.	Telephone No.

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

International application No.

PCT/JP2004/008563

Box No. I Basis of this opinion

1. With regard to the language, this opinion has been established on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.
☐ This opinion has been established on the basis of a translation from the original language into the following language _____, which is the language of a translation furnished for the purposes of international search (under Rule 12.3 and 23.1(b)).
2. With regard to any nucleotide and/or amino acid sequence disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:
 - a. type of material
☐ a sequence listing
☐ table(s) related to the sequence listing
 - b. format of material
☐ in written format
☐ in computer readable form
 - c. time of filing/furnishing
☐ contained in the international application as filed.
☐ filed together with the international application in computer readable form.
☐ furnished subsequently to this Authority for the purposes of search.
3. ☐ In addition, in the case that more than one version or copy of a sequence listing and/or table(s) relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.
4. Additional comments:

**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY**

International application No.

PCT/JP2004/008563

Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Claims <u>1 - 9</u>	YES
	Claims _____	NO
Inventive step (IS)	Claims _____	YES
	Claims <u>1 - 9</u>	NO
Industrial applicability (IA)	Claims <u>1 - 9</u>	YES
	Claims _____	NO

2. Citations and explanations:

This written opinion provides an opinion based on documents 1-5 below presented in the ISR.

Document 1: JP 2001-64248 A (Lion Corporation), 13 March 2001

Document 2: JP 8-157894 A (Lion Corporation), 18 June 1996

Document 3: JP 9-87700 A (Lion Corporation), 31 March 1997

Document 4: JP 10-88197 A (Lion Corporation), 7 April 1998

Document 5: JP 11-172299 A (Lion Corporation), 29 June 1999

Concerning novelty

None of documents 1-5 describe a method for producing powders, flakes, or pellets containing salts of α -sulfofatty acid alkyl esters in high concentrations including all of the processes (1) - (4) described in claim 1.

Consequently, claims 1-9 appear to be novel.

Concerning inventive step

A process for sulfonating fatty acid alkyl ester by causing contact with sulfonated gas, esterifying the result with a lower alcohol, then bleaching and neutralizing to obtain a paste containing salts of α -sulfofatty acid alkyl esters (corresponding to process (1) described in claim 1) is conventionally known as described in document 1, for example (refer to document 1 (paragraphs 0002-0014, "prior art", and Fig. 10).

A method for producing powders, flakes, or pellets containing salts of α -sulfofatty acid alkyl esters in high concentrations with a process for making a paste containing salts of α -sulfofatty acid alkyl esters into flakes or pellets with 10 mass-percent of water or less and in some cases pulverizing the obtained flakes or pellets into a powder with an average particle diameter between 100 and 1500 μm (corresponding to process (3) described in claim 1), and then producing a granulated detergent by granulating the powder, flakes, or pellets or blending the same with other detergent ingredients is also already known (refer to document

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Box No. VIII Certain observations on the international application

The following observations on the clarity of the claims, description, and drawings or on the question whether the claims are fully supported by the description, are made:

Although the production method of the inventions of the present application include “(2) a first aging process for aging the obtained paste” and “(4) a second ageing process for ageing the powder, flakes, or pellets”; page 12, line 4 and page 16, line 2 of the specification have the description that, “aging refers to maintaining at specified temperature for a specified time”, but because no specific range of temperature and time is specified even though a suitable range of time and temperatures is exemplified; it is impossible to grasp clearly what sort of processes each of the above “aging processes” are.

Supplemental Box

In case the space in any of the preceding boxes is not sufficient.

Continuation of: Box V

2 (abstract, claims 1-5, paragraphs 0014-0023, and 0024-0027); document 3 (abstract, claims 1-2, paragraphs 0009-0011, and 0015-0019); document 4 (abstract, claim 1, paragraphs 0011-0015, and 0016-0019); and the abstract, document 5 (claims 1-2, paragraphs 0007-0010, 0013-0019, 0021, 0027-0031, examples 1-9, and tables 1-2); for example).

The use of the paste containing salts of α -sulfofatty acid alkyl esters obtained in the process described in document 1 in the method for producing powders, flakes, or pellets containing salts of α -sulfofatty acid alkyl esters in high concentrations or the method for producing a granulated detergent containing the same would be easily conceived by a person skilled in the art.

The production method of the invention of the present application includes "(2) a first aging process for aging the obtained paste" and "(4) a second aging process for aging the powder, flakes, or pellets". However, as also pointed out in Box VIII, it is unclear what sort of processes the "ageing processes" are, and this examination finds that this may include allowing the intermediate product to merely sit for an unspecified time at an unspecified temperature.

This being the case, because there is an adequate likelihood that the intermediate product will be held at a fixed temperature from several minutes to several hours between the time one process ends and the next begins in the method for producing a granulated detergent depending on the state of the preparation of the next process, etc., holding the intermediate product paste or the powder, flakes, or pellets from several minutes to several hours before the next process begins after the process for obtaining the paste containing salts of α -sulfofatty acid alkyl esters and the process for obtaining powder, flakes, or pellets containing salts of α -sulfofatty acid alkyl esters in high concentrations is obvious to a person skilled in the art.

The matter of whether to neutralize or bleach first in the process for obtaining a paste containing salts of α -sulfofatty acid alkyl esters is merely a subject matter that would be electively selected by a person skilled in the art. This examination finds that no outstanding effect that cannot be predicted is obtained by carrying out neutralization first and then bleaching the neutralized product.

Further, a method for spray drying a slurry containing detergent ingredients is well known as a method for producing granulated detergents, and this examination finds that there is no particular difficulty in kneading the detergent ingredients common to granulated detergents to form a solid detergent.

Consequently, claims 1-9 do not appear to involve an inventive step.

Concerning industrial applicability

Claims 1-9 have industrial applicability in fields such as detergents.